



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 57 TO FACILITY OPERATING LICENSE NO. NPF-11 AND  
AMENDMENT NO. 38 TO FACILITY OPERATING LICENSE NO. NPF-18

COMMONWEALTH EDISON COMPANY

LASALLE COUNTY STATION, UNITS 1 AND 2

DOCKET NOS. 50-373 AND 50-374

1.0 INTRODUCTION

The proposed amendments to Operating License No. NPF-11 and Operating License No. NPF-18 would revise the LaSalle Units 1 and 2 Technical Specifications surveillance requirements of Section 4.0.2.b that would occur during Cycle 3 for Unit 1 and during Cycle 2 for Unit 2. These amendments will defer specified surveillance until refueling and thus allow continued operation of Unit 2 until the scheduled refuel date of October 17, 1988. They will also allow restart and operation of Unit 1 until the Unit 2 surveillances can be performed during the Unit 2 outage that affect Unit 1. These amendments are a one-time request as a result of significant change in the scheduled refuel outages.

2.0 DISCUSSION AND EVALUATION

Of the total of approximately 600 refuel surveillances, 6% are due before the scheduled outage date of October 15, 1988. The first of these surveillances is due on June 15, 1988. Therefore, the maximum extension for any single surveillance would be 4 months. Since the allowable interval for three consecutive surveillances is 58.5 months (18 months x 3.25), this represents an extension of less than 7% beyond the specified combined surveillance interval but will not exceed the 18 months +25% in any case.

Technical Specification 4.0.2 allows a required surveillance time interval to be extended by as much as 25% provided that the combined extension time for three consecutive intervals does not exceed 3.25 times the specified time interval. For refuel interval surveillances, these allowances provide a sufficient degree of flexibility (22.5 months) for outage planning over two-time intervals. However, when this flexibility is used, the 3.25 criteria becomes increasingly difficult to meet and technical specification relief or a mid-cycle surveillance outage is required in order to remain within the requirements of the unit license.

Generic Letter 83-27 dated July 6, 1983 entitled "Surveillance Intervals in Standard Technical Specifications" indicates that the 18-month surveillance interval is based on reactor operating experience and the recognition of reactors utilizing 18-month fuel cycles. The basis for the provision which allows any surveillance interval to be extended by 25% is to provide the

necessary operational flexibility which may be required due to scheduling and operational performance considerations. Generic Letter 83-27 also indicates that one time changes may be granted for plant specific conditions where adequate justification is provided.

LaSalle County has identified scheduling problems for the Unit 2 Cycle 2 refuel outage. These problems are a direct result of first cycle operating history and Unit 1 second cycle equipment problems. As a result, the first and second surveillance intervals exceeded 18 months. Since these intervals exceeded 18 months, the amount of time in excess of 18 months is deducted from the 3.25 limit of technical specification 4.0.2.b.

The Unit 1 Cycle 2 refuel outage was originally scheduled to begin on December 7, 1987, however, problems with one of the reactor recirculation pumps necessitated Unit 1 operation in single loop at a 50% power level for an extended period of time. Additionally, a major outage of approximately 3-months duration was required to repair the recirculation pump. As a result of these delays in the fuel outage, it was necessary to reschedule the Unit 1 Cycle 2 refuel outage to ensure an adequate utilization of the installed fuel. The Unit 1 outage began on March 13, 1988 and is scheduled to end in early July 1988.

The extension of the Unit 1 fuel cycle has therefore impacted the Unit 2 outage schedule. Unit 2 was originally scheduled to begin the next refuel outage on July 23, 1988. This schedule would have resulted in a near overlap of the Unit 1 and Unit 2 outages. A two unit outage is difficult to plan for and requires exacting scheduling of equipment and services procurement and results in competition for limited station resources. Based on these problems, it was decided to reschedule the Unit 2 refuel outage to begin on October 15, 1988 and to end in early 1989. The outage start date was moved as far back as the fuel cycle would permit in order to give a maximum amount of time for planning, procurement, and scheduling between the Unit 1 and Unit 2 outages. However, this extension to the Unit 2 fuel cycle requires extension to several of the refuel interval surveillance requirements specified by the technical specifications. Therefore, relief is required for Unit 2 equipment which has refuel surveillance requirements in the Unit 1 and the Unit 2 technical specifications.

Technical specifications requiring surveillance interval extension fall into the following categories:

#### Functional Tests

These tests are divided into the following categories:

- a) Logic System Functional Test (LSFT)
- b) Channel Functional Test (CFT)

A LSFT is a test of all logic component associated with the system (from sensor to system actuation) to demonstrate the system functions as designed. An example of this is the testing for the Unit 2 Diesel Generator Cooling Water Subsystem in the Unit 1 Technical Specification 4.7.1.2. This surveillance assures that the Unit 2 Diesel Generator cooling water pump starts when a start signal is received for the 2A Diesel Generator.

A CFT is a test which injects a signal into the logic channel to simulate a sensor trip and verify proper operation of the remaining portion of the trip channel.

All of the affected systems have functional tests and/or calibrations which have been tested within their Technical Specification surveillance frequency. These functional tests or calibrations verify operability of the instrumentation and/or components of which the logic system is a part. In many cases these tests cover the majority of the logic system. Since the parts of the systems which are more likely to fail (valves, instruments, etc.) are verified operable by current surveillances during the extension period, no impact on plant safety will occur.

#### Leak Rate Test

A test performed to verify that the leakage through valves is less than the value assumed in the system design.

Guidance is provided in Appendix J for primary reactor containment leakage testing which allows 2 years between tests. In addition to the requirements of 10 CFR 50 Appendix J, valve leak tests are specified in the Technical Specifications 3/4 4.3.2 to monitor leakage at high/low pressure interfaces. Technical Specification 4.0.2.A will be satisfied for all required tests even with the relief requested. Since this is less than 24 months, all Appendix J requirements will be met.

#### Other Tests

##### Flow Test

A test performed to demonstrate a system can pump to its design destination.

Injection of Standby Liquid Control System into the reactor vessel using demineralized water. Verification of pump operability is still maintained through other current surveillances. This test only verifies the complete flow path to the reactor vessel.

##### Electrical Power Tests

Tests performed on diesels to demonstrate that they are capable of performing their design functions.

These tests are performed while shutdown during refueling. They are included in the testing program to ensure periodically that certain functions have not degraded. These tests include logic testing, preventive maintenance, etc.

The diesel generators are verified to be operable while the units are in operation by performing several surveillances required by technical specifications. These tests ensure that the diesel will start, accept load and have available all required auxiliary systems.

This surveillance requirement will also require a change to the Unit 1 Technical Specifications since Unit 2 Division 2 operability is specified for Unit 1 electrical power system availability.

#### Response Time Test

A test performed to verify the time delay incurred for a protective action on a particular system or instrument channel. The time delay is measured as the interval from the monitored parameter exceeding its trip setpoint at the channel sensor to the desired system/channel response.

The licensee has reviewed the surveillances affected by this amendment request and has concluded that there is no reason to expect significant safety-related component failures during the extended surveillance interval. Based on the detailed review of surveillances conducted by the licensee, the staff agrees with the licensee that the probability that surveillances will not meet their acceptance criteria is not expected to be affected by the extension and thus, is acceptable.

The staff concludes that the quality of the components affected and their ability to perform will be maintained during the extension period to at least the equivalent of that level currently provided by the Technical Specifications for a maximum surveillance interval (i.e., 18 months plus 25%). Furthermore, the staff concludes that this extension of 7% is not significant with regard to the surveillance interval and does not warrant an additional plant shutdown.

With regard to future calculations for the 3.25 criteria, this extension does not apply but, is applicable only to certain refuel interval surveillances for Unit 1 Cycle 3 and Unit 2 Cycle 2. However, it should be noted that although we are granting this one-time extension, the licensee should plan future surveillances in order that such extensions are not necessary.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in the installation and use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that this amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### 4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the FEDERAL REGISTER (53 FR 13012) on April 20, 1988, and consulted with the state of Illinois. No public comments were received, and the state of Illinois did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

#### REFERENCE

Letter from C. Allen, Commonwealth Edison to USNRC dated March 9, 1988.

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Dated: May 24, 1988